STEAM BOILERS										
1	Course Title:	STEAM I	BOILERS							
2	Course Code:	MAK420	4							
3	Type of Course:	Optional								
4	Level of Course:	First Cyc	le							
5	Year of Study:	4								
6	Semester:	8								
7	ECTS Credits Allocated:	4.00								
8	Theoretical (hour/week):	3.00								
9	Practice (hour/week):	0.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:	None								
12	Language:	Turkish								
13	Mode of Delivery:	Face to f	ace							
14	Course Coordinator:	Prof. Dr.	Abdulvahap Yiğit							
15	Course Lecturers:									
16	Contact information of the Course Coordinator:	avahap@uludag.edu.tr / 2242941971 / U.Ü. Müh. Mim. Fak. Mak. Müh. Bölümü BURSA								
17	Website:									
18	Objective of the Course:	Be accomplished with the basic knowledge of conventional steam boilers. Be equipped with the basic knowledge of efficiency of boilers Have the basic knowledge of fuels and combustion. Be equipped with the basic knowledge on boilers auxiliary elements Acquire a capacity to analyze and design of boilers. Be accomplished with the basic knowledge of chimney.								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	Select appropriate boilers of hot water or steam.							
		2	Select appropriate auixiliary elements for boilers.							
		3	Determine of furnace temperatures							
		4	Determine and solve the problems of heat transfer area							
		5	Determine of project of boilers and chimneys							
		6								
		7								
		9								
		10								
21	Course Content:									
		Со	urse Content:							
Week	Theoretical		Practice							
1	Introduction, description and thermoon of boilers	dynamics								

2	Classification of boilers									
3	Fire tube boilers									
4	Water tube boilers									
5	Special boilers		T							
6	Auixiliary elements									
7	Fuels		Т							
8	Repeating courses and midterm ex	am								
9	Midterm exam		T							
10	Radiation: radiation of gas, fire and	soot								
11	Calculation of furnace temperature		Т							
12	Calculations of heat transfer area									
13	Calculation of chimney		Т							
14	Project calculation of boilers									
22	Textbooks, References and/or Otho Materials:	2 s s tr) Buhar Kazanları İsil Hesapları, K. Onat, O. F. Genceli, A. Arısoy, Teknik Yayıncılık Tanıtım A.Ş., 1996, İstanbul 2) Buhar Kazanları, O. F. Genceli, Birsen Yayınevi, İstanbul 3) Sanayi Kazanları ve ek donanım işletme el kitabı, tmmob, yayın no 110, 1996 4) Buhar Tesisatı, İsısan Çalışmaları No 252, 2000							
Activit				Number	Duration (hour)					
Theore	tical	Ī	Ī.,	14	3.00	42.00				
	EARNING ACTIVITIES als/Labs	NUMBE	_IV	0	0.00	0.00				
Steat en	ଆଧ୍ୟ ଜ୍ଞା ଷ preperation	1	4	0190	2.00	28.00				
Homew	vorks			1	12.00	12.00				
Frones t	work-project	1	1	0000	0.00	0.00				
Field S	tudies			0	0.00	0.00				
T Voidaern	n exams	3	1	00.00	2.00	2.00				
Others				16	4.00	64.00				
Final E	ss Grade xams			1	2.00	2.00				
Total W	Vork Load					150.00				
Tetal w	ork load/ 30 hr		1	00.00		5.00				
	Credit of the Course					4.00				
Course	1		I							
	ECTS / WORK LOAD TABL									
25	25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS									

PQ1 PQ2 PQ3 PQ4 PQ5 PQ6 PQ7 PQ8 PQ9 PQ1 PQ11 PQ12 PQ1 PQ14 PQ15 PQ16 ÖK1 ÖK2 ÖK3

ÖK4	3	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0
ÖK5 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																
Contrib 1 very low ution Level:			2	2 low		3 Medium			4 High			5 Very High				